

NOTE

A Gynandromorph of *Hockeria rubra* (Ashmead)
(Hymenoptera: Chalcididae)

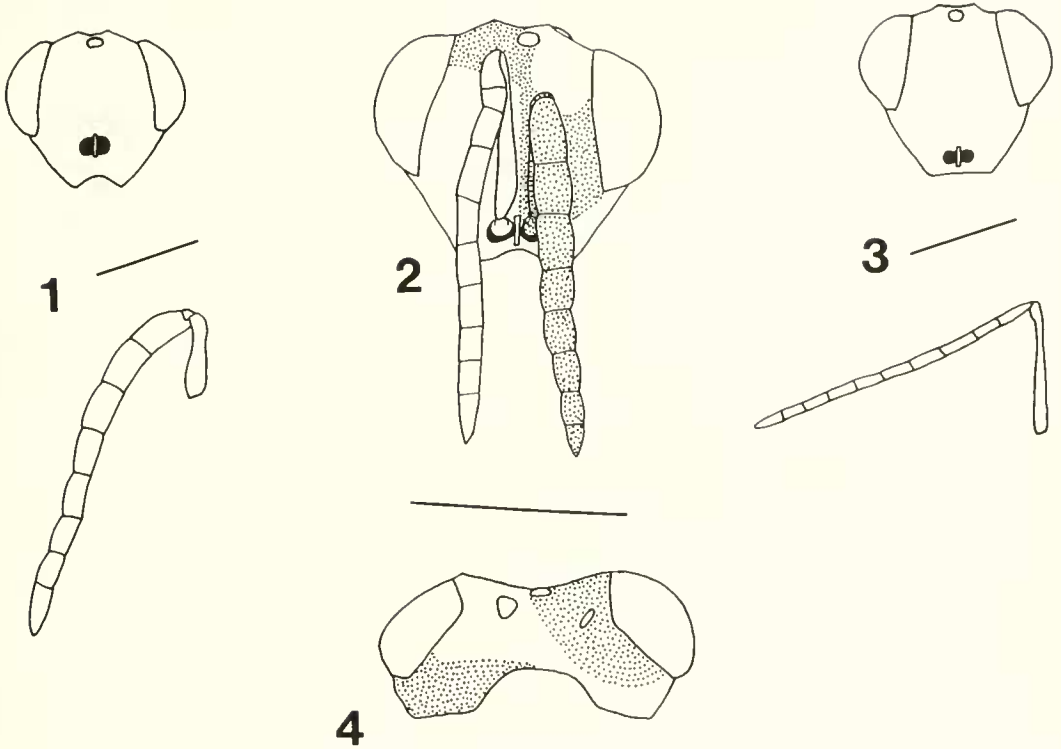
A gynandromorph is an individual which has both male and female characters. This condition is often reported in the literature and occurs in many insect orders. Gynandromorphism is commonplace in *Drosophila* and ants. In ants, a specialized terminology has been developed to denote particular types of gynandromorphs (Donisthorpe, 1929, Zool. Anz. 52: 92-96; Berndt and Kremer, 1982, Experientia 38: 798-799). Gynandromorphism is believed to be caused by fertilization anomalies and meiotic abnormalities during embryogenesis though the definitive causes, at least in ants, remain unknown (Jenkins, 1979, Genetics, Second edition, Houghton Mifflin Co., Boston, MS; Jones and Phillips, 1985, Proc. Entomol. Soc. Wash. 87(3): 583-586; *ibid.*, 1982).

While examining specimens at the United States National Museum of Natural History (USNM) for a revision of the genus *Hockeria* Ashmead in North America, I found a gynandromorph of *Hockeria rubra* (Ashmead). I take this opportunity to describe this gynandromorph because the condition is believed to be rare in this family and may be the first such record.

Typically, females of *H. rubra* are red or orange with slender filiform antennae, patterned wings, and are about 7 mm long (4-10 mm). Males are black, have robust filiform antennae, clear wings, and are about 5 mm long (3-6 mm). The gynandromorph was reared from the Western Grapeleaf Skeletonizer, *Harrisina brillians* B & McD. (Lepidoptera: Zygaenidae), a pest in which the larvae defoliate grapes (*Vitis* spp.) and two ornamental vines, Virginia Creeper (*Parthenocissus quinquefolia*) and Boston Ivy (*P. tricuspidata*) in the southwestern United States and Mexico (Stern et al. 1981.

Western Grapeleaf Skeletonizer, pp. 140-146. In Flaherty et al. [eds.], Grape Pest Management, Univ. Calif. Publ., Berkeley, CA). *Hockeria rubra* ranges throughout the United States and Mexico (Burks, 1979, Chalcididae, pp. 860-879. In Krombein et al. [eds.], Catalog of Hymenoptera in America North of Mexico, Vol I, Smithson. Inst. Press., Wash., D.C.; Halstead, in prep.).

The gynandromorph "EX. *Harrisina brillians* pupa, coll. Chihuahua, Mexico, 10/10/51, O. J. Smith, #A," is as follows (see Figs. 1-4): 3 mm. Right antenna (♀), scape long and thin, 12× as long as wide, flagellum slender and filiform, flagella 2× as long as wide; scape, pedicel and flagella 1-2 orange, remainder black. Left antenna (♂), scape short and stout, 7× as long as wide, flagellum robust and filiform, flagella 1.7× as long as wide; antenna black except for scape which is dark orange-brown. Right half of occiput (dorsal view) black anteriorly (♂), orange posteriorly (♀); left half of occiput orange anteriorly (♀), black posteriorly (♂). Right lateral ocellus elliptical, situated slightly posterior to vertex (♂); left lateral ocellus round, situated on vertex (♀). Right gena orange (♀), left gena black (♂) with central area orange (♀). Right frons black dorsally (♂), remainder orange (♀); left frons orange ventrally and dorsally (♀), black centrally (♂). Pubescence on eyes similar to that of females, less pubescent than on males. Right eye situated more dorsad, giving a tilted assymetry to the face in frontal view. Pronotum, forelegs, and right hindleg orange (♀). Left hindleg black except for apex of tibia and tarsus which are orange-brown (♂). Right hindfemur narrowly ovoid (♀); left hindfemur broadly ovoid (♂). Forewings clear (♂). Remainder of thorax and abdomen black (♂).



Figs. 1-4. *Hockeria rubra* (Ashmead). 1, Head, frontal view, of male; side view of antenna. 2, Head, frontal view, of gynandromorph (stipuled = male, black color; nonstipuled = female, orange color). 3, Head, frontal view, of female; side view of antenna. 4, Head, dorsal view, of gynandromorph (stipuled = male, black color; nonstipuled = female, orange color). Scale lines 1.0 mm.

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